

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE:

NOV 13 1991

SUBJECT:

Request for PRP Search

FROM:

John Witkowski, Chief
Technical Support Section

TO:

Leslie Peterson, Chief
Program Support Section

HOLD UNTIL
DECEMBER 16

On September 30, 1991, the Technical Support Section received a referral from New Jersey Department of Environmental Protection and Energy to conduct a preliminary assessment of the Bayonne Barrel and Drum Site (BBD) located in Newark, Essex County, New Jersey.

Since our preliminary investigation of the site, it has been determined that a PRP search is warranted at this time for BBD.

Therefore, please provide your assistance in commencing the PRP Search for BBD located at 150-154 Raymond Blvd. Newark, Essex County, New Jersey.

The information we have to date reveals that the property had been placed in Bankruptcy Court and the owner has recently passed away. The property is currently for sale.

Please review the attached memoranda for the current site status.

Thank you for your assistance in this matter.

Attachments

cc: P. Cammarata, 2ERR-RAB-TSS
N. Magriples, 2ERR-RAB-TSS
S. Becker, 2ERR-PS

PHILLIP
MR-PERLMAN - CHICAGO

POTOMAC TECHNOLOGIES
IS BUYING PROPERTY
AND WILL CLEAN UP

ORC - AMY CHESTER
4760

RCRA -
JOHN WILK
6141

372193



RCRA Enforcement Inspection

Bayonne Barrel and Drum
Newark, New Jersey

NJD009871401

June 2, 1988

Participating Personnel:

U.S. Environmental Protection Agency

M. Ferriola, Environmental Scientist
R. Coleates, Environmental Scientist
R. Morrell, Geologist
D. Dugan, Environmental Scientist
J. Wilk, Environmental Scientist

Bayonne Barrel and Drum

Frank Langella, Company owner

Report Prepared by:

Michael Ferriola, Environmental Scientist
Source Monitoring Section

Approved for the Director by:

Richard D. Spear, Chief
Surveillance and Monitoring Branch

Bayonne Barrel and Drum
Newark, New Jersey

NJD009871401
June 2, 1988

RCRA ENFORCEMENT INSPECTION

Objective

A RCRA sampling inspection was conducted at Bayonne Barrel and Drum (BBD) on June 2, 1988, by members of EPA's Region II, Environmental Services Division. This investigation was requested by the Hazardous Waste Compliance Branch (HWCB) in New York. The scope of this inspection was to determine if BBD is actively storing hazardous wastes on site and establish present site conditions as compared to the original sampling investigation performed by EPA in 1984. A general site map (Figure 1) is attached which illustrates the approximate sampling locations.

Survey Participants

Frank Langella, Company owner - Bayonne Barrel and Drum

Tom Colligan, Operations Manager - Interwaste Services Company (ISCO)

James Wilson, Field Engineer - ISCO

Andy Kondracki, Environmental Controls Manager - ISCO

Mike Young, ISCO

Mike Ferriola, Environmental Scientist - U.S. EPA

Richard Coleates, Environmental Scientist - U.S. EPA

Robert Morrell, Geologist - U.S. EPA

David Dugan, Environmental Scientist - U.S. EPA

John Wilk, Environmental Scientist - U.S. EPA

* Personnel from Interwaste Services Co. (ISCO) were contracted by BBD to collect split samples and observe EPA sampling activities.

Discussion

On June 2, 1988, a RCRA sampling inspection was conducted at Bayonne Barrel and Drum, located at 150 Raymond Boulevard in Newark, New Jersey. Two previous sampling inspections were attempted. However, due to an access denial on May 12 and inclement weather on May 19, those inspections were not completed. Access was denied on May 12 by BBD's attorney, Damon Sadita, after being on site for approximately one hour and actively engaged in sampling. EPA was informed by their attorney that investigative personnel (EPA) should not be on site. This arrangement was made as per an agreement with the Department of Justice in Washington, D.C., since the site was already in litigation. A second sampling visit was scheduled, after consent by EPA and BBD attorneys, exactly one week later on May 19, 1988. Due to excessive rain the previous 36 hours, sampling had to be postponed once again.

Site Description

Currently, BBD is an inactive drum reconditioning facility which has filed for bankruptcy under Chapter 11 and is only staffed by a few maintenance/security people. The plant has undergone some surficial cleaning/house-keeping which includes the arrangement of empty drums in orderly rows, grading of empty lots on the south side of the buildings, and removal of most equipment from the building interiors. In addition, the ash pile on the southwest corner of the property has been covered with a sheet of clear plastic. During EPA's initial attempt to sample, the ash pile was found uncovered. However, on a second sampling attempt, the contractor representing BBD had covered the ash pile with several rolls of clear sheet plastic. During the third and actual sampling inspection, the pile remained covered.

Even though the plant "appears aesthetically cleaner", there remain a few areas which appear grossly contaminated. The drum and ash storage room contains a large ash pile from incineration activities. Also, approximately 150 drums remain which contain ash or aqueous materials. A few drums had holes punched in their sides which allowed the contents to stain the surrounding floor space. A couple of drums had been inverted to prevent their contents from leaking and others were severely dented and/or crushed. Most drums contained ash which looked similar in nature to the ash pile in the middle of the room. See the attached photographs for illustrations. Approximate building locations and sampling sites are depicted in Figure 1. In addition, an ash pile remains in the courtyard between the incinerator and the furnace room building. The ash residue was multicolored, as shown in the attached photographs.

Sampling locations and methodology

In order to fulfill the objectives of this investigation, a total of seven predetermined locations were selected. The sampling network and rationale was based upon a previous sampling inspection by EPA (2/84) and new locations proposed by the HWCB during a presurvey walk-through conducted on April 15, 1988. Based upon this information, the following points were selected:

- 1 - Furnace room building
- 2 - Courtyard area
- 3 - Drum and ash storage room (near incinerator)
- 4 - Waste ash pile (near rows of drums)
- 5 - Oil separator trench
- 6 - Pump House (near oil separator trench)
- 7 - Underground tank (near toluene pump)

Approximate sample locations are depicted in Figure 1 which correspond to the sample numbering system above. The analyses requested included EP Toxicity (metals only), volatile organic analysis (VOA), non-volatile organic analysis (NVOA), PCB's, and also pH for aqueous samples. In addition, ignitability was analyzed on the drum sample containing an aqueous solution (sample # 112213).

The following is a list of sample identification numbers, corresponding sample locations, and descriptions of collection techniques:

Sample #112201 - This sample was collected from the floor of the furnace room building as depicted in picture #10. The ash sample was collected at random from several locations using a dedicated polypropylene scoop. The sample was then mixed in a stainless steel tray to form a composite sample, which was subsequently split for EPA personnel and the BBD contractor. The stainless steel tray was lined with new "Whatman Benchcoat" paper each time a sample for ash was collected to prevent cross contamination among different sampling locations.

Sample #112202 - Courtyard area ash sample collected at random using the same techniques as listed in sample #112201. Photographs #5 - 9 illustrate the sample location and collection techniques. Make special notice of the various colors encountered in the ash pile and sample collected.

Sample #112203 - Drum and Ash storage room ash sample collected in a manner identical to that listed in sample #112201. Level B personal protective equipment (PPE) was worn in this area due to the presence of hazardous organic vapors, as indicated by air monitoring equipment. Pictures #15-16 illustrate sampling technique and level of protective equipment required.

Sample #112204 - This sample number represents the "WEST" half of the waste ash pile near the drum storage area. An imaginary line was drawn through the ash pile to delineate an "EAST" and "WEST" half, for the purpose of sampling only. Figure 1 shows the relative location of the ash pile and illustrates the approximate boundary drawn to delineate the two halves. Photographs #17 and 19 illustrate the entire waste ash pile and sample collection in the "WEST" half, respectively. Level C PPE was worn during sample collection and compositing. Since the ash pile was covered with polyethylene plastic sheeting, holes were cut at random to enable sample collection. Samples were collected using a dedicated polypropylene scoop and thoroughly mixed in a stainless steel tray to form a composite sample.

Sample #112205 - Aqueous samples were collected from the oil separator trench using an I-Chem Series 300, one quart glass jar attached to an aluminum rod and clamp. Samples were poured directly from the glass jar into the respective sample containers.

Sample #112206 - Aqueous samples were collected from the pump house using the same techniques mentioned in sample #112205. Picture #1 illustrates the pump house and rod/clamp used for sample collection. A duplicate sample, #112211, was also collected at this location.

Sample #112207 - Aqueous samples were collected from an underground tank near the toluene pump. The sample was collected by taping an I-Chem Series 300 glass jar to an aluminum rod. The sample was collected in this manner due to the size of the access standpipe. In addition, the aluminum rod was shaped to fit the angled opening of the tank. See picture #3, which illustrates sampling of the underground tank.

Sample #112208 - In addition to collecting ash samples from the courtyard, aqueous samples were also collected as depicted in photograph #4. Ponded water samples were collected in a low lying area adjacent to the courtyard ash pile and incinerator. Sample collection technique was by direct filling an I-Chem Series 300 glass jar and pouring into the appropriate sample containers.

Sample #112212 - This sample number represents the "EAST" half of the waste ash pile near the drum storage area. Photograph #18 depicts sampling the "EAST" half of the ash pile while wearing Level C PPE. Sample collection techniques were the same as in sample #112204. A series of random grab samples were collected using a dedicated polypropylene scoop and then composited in a stainless steel tray. After the sample was thoroughly mixed, the respective sample containers were filled.

Sample #112213 - An aqueous sample was collected from a "RED" drum in the drum and ash storage room as depicted in photographs #11 - 12. Level B PPE was worn due to the presence of high concentrations of unknown organic contaminants. The drum was sampled using a precleaned, dedicated teflon bailer. Pictures #13 - 14 indicate the particular red drum which was sampled and other drums in the immediate area. Note the condition of the drums in all four photographs. Most of the drums contained ash which looked similar in nature to the ash pile in the center of the room. However, some of the drums contained liquids of unknown content. Many of the containers were in very poor condition, some with holes and a few inverted to prevent their contents from leaking onto the floor.

All samples were collected in accordance with established EPA, Region II protocols. Standard EPA Chain of Custody procedures were employed throughout this inspection and a receipt for samples was signed by the facility representative (ISCO), as required under section 3007 (a) of RCRA. All samples collected by EPA were split with ISCO during this investigation (containers for BBD samples were provided by ISCO). EPA samples were analyzed at the Region II laboratory in Edison, New Jersey.

Results of Analyses

The results obtained from the samples collected during this investigation are presented in the following tables: Volatile Organics GC/MS scan (Table 1), Non-volatile Organics GC/MS scan (Table 2), and EP TOX Metals (Table 3).

Table 1 presents the volatile organic compounds and concentrations that were detected. The results indicate the presence of volatile organics in all samples collected. Exceptionally high concentrations of volatile organic compounds were found in samples #112212 and #112213. Concentrations ranged from 490 ug/l of trichloroethylene to 10,000,000 ug/l of xylene in those samples.

Table 2 presents the non-volatile organics/PCB compounds and concentrations that were detected. Very high concentrations of non-volatile organics were found in the ash samples, as presented in the attached tables, pages 2a - 2b. In addition, PCB's were found in sample #112212 at 115,400 and 293,970 ug/l for Aroclor 1248 and 1254, respectively. High concentrations of non-volatile organics were also found in the drum sample, #112213.

Table 3 presents the results of analyses for the hazardous waste characteristic of EP Toxicity (metals). The maximum concentration allowed for cadmium (1.0 mg/l) was exceeded in three of the samples collected (#112201, 112203, and 112204). All other EP Toxicity metals contaminants were below the maximum limit allowed, as presented in Table 3.

Aqueous samples were analyzed for pH, and in addition, ignitability analysis was performed on the drum sample. Results of these analyses show that none of the samples analyzed met the criteria of corrosivity or ignitability, as per 261.21 and 261.22. Results are presented below:

Characteristic of Corrosivity

<u>Sample #</u>	<u>ph (SU)</u>
112205	7.37
112206	6.59
112207	6.28
112208	6.70
112213 (drum)	10.9

Characteristic of Ignitability

<u>Sample #</u>	<u>Flash point</u>
112213	> 145°F

Findings and Conclusions

Based upon the sampling results of this investigation and a visual inspection of the site, Bayonne Barrel and Drum is in violation of existing RCRA and TSCA regulations. Analytical results indicate that the waste ash pile, drum and ash storage room ash, and furnace room ash are a RCRA hazardous waste in accordance with 40 CFR Part 261.24. The ash exhibits the characteristic of EP Toxicity for cadmium (D006).

Results of PCB analyses show concentrations for Aroclor 1248 and 1252 to be 115 and 293 mg/l, respectively. This is a violation of TSCA regulations 40 CFR Part 761.60.

The waste ash pile was still in violation of 40 CFR Part 265, Subpart L (waste piles) during the initial site visit on May 12, 1988. The pile was subsequently covered by sheet plastic on May 19, 1988. However, a containment system to prevent and collect run-off or eliminate a discharge to groundwater does not exist.

The drum and ash storage room contained many drums, approximately 100-150, which were not marked as a hazardous waste and were apparently stored in excess of 90 days.

In addition, numerous organic compounds were found throughout the site in varying concentrations. All results are listed in Tables 1-3.

TABLE 1
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
VOLATILE ORGANICS GC/MS SCAN
JUNE 2, 1988

Ash samples

page 1a

PARAMETER/SAMPLE#	#112201	#112202	#112203	#112204	#112212
Benzene					
Carbon Tetrachloride					
Chlorobenzene			28 M		
1,2-dichloroethane			540 M		
1,1,1-trichloroethane	96 M		340 M		64 M
1,1-dichloroethane					
1,1,2-trichloroethane					
1,1,2,2-tetrachloroethane					680 M
Chloroethane					
Chloroform		28 J	60 M		24 M
1,1-dichloroethylene					
1,2-trans dichloroethylene					
1,2-dichloropropane					
1,3-dichloropropylene					
Ethylbenzene	140 M	570	1500	100 M	5200
Methylene chloride					
Methyl chloride					
Methyl bromide					
Bromoform					
Dichlorobromomethane					
Chlorodibromomethane					
Tetrachloroethylene		80 M	1200	140 M	1300
Toluene	310 M	1300	2700	200 M	12,000
Trichloroethylene	82 M	46 M	550	110 M	490
Vinyl chloride					
Xylene		1200	3200		4600
Styrene					2500

All concentrations in ug/kg.

M = above the detection limit, but below the level of quantification

J = estimated value

TABLE 1
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
VOLATILE ORGANICS GC/MS SCAN
JUNE 2, 1988

Aqueous samples

page 1b

PARAMETER/SAMPLE#	#112205	112206	Dup. 112211	#112207	#112208	#112213
Benzene			4.4			92,000
Carbon Tetrachloride						
Chlorobenzene		9.4	7.3			78,000
1,2-dichloroethane						
1,1,1-trichloroethane		5.2	4.3			
1,1-dichloroethane		11	8.8			
1,1,2-trichloroethane		1.3M	1.0M			
1,1,2,2-tetrachloroethane						
Chloroethane						
Chloroform	2.6 M	1.6	5.5	10		
1,1-dichloroethylene						
1,2-Trans dichloroethylene	3.7 M	55	41	2.3		
1,2-dichloropropane						
1,3-dichloropropylene						
Ethylbenzene		130	110	1.8 M	14 M	1,200,000
Methylene chloride						
Methyl chloride						
Methyl bromide						
Bromoform						
Dichlorobromomethane						
Chlorodibromomethane						
Tetrachloroethylene		2.2M	1.6M			62,000
Toluene	2.6 M	660	540	0.4 M	600 J	2,400,000 J
Trichloroethylene		4.5	3.4	0.5 M		
Vinyl chloride		18	12			
Xylene	5.0 M	140	220	4.1 J	60 J	10,000,000
4-methyl-2-pentanone		21	17			
Styrene			38			

All concentrations in ug/l.

M = above the detection limit, but below the level of quantification

J = estimated value

TABLE 2
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
NON-VOLATILE ORGANICS GC/MS SCAN
JUNE 2, 1988

page 2a

Ash samples

PARAMETER/SAMPLE #	112201	112202	112203	112204	112212
2-chlorophenol					
2-nitrophenol					
phenol		2350 J	104,400 J		
2,4-dimethylphenol			2,350 M		
2,4-dichlorophenol					
2,4,6-trichlorophenol					
p-chloro-m-cresol					
2,4-dinitrophenol					
4,6-dinitro-o-cresol					
pentachlorophenol					
4-nitrophenol					
1,3-dichlorobenzene					
1,4-dichlorobenzene					
1,2-dichlorobenzene		330 M	5,780 M	140 M	
hexachloroethane				400 M	
hexachlorobutadiene					
1,2,4-trichlorobenzene	490 M	620 M	49,200 J	2820 J	
naphthalene	2600 J	9910 J	15,050 J	6430 J	1210 M
bis(2-chloroethyl) ether					
bis(2-chloroethoxy) methane			5,080 M		
isophorone		6730 J	5,060 M	1060 M	
nitrobenzene					
acenaphthylene		1250 M	700 M	2850 M	
acenaphthene		130 M	3,700 M	450 M	
fluorene		1520 M	7,375 J	490 M	
hexachlorobenzene					
phenanthrene	1140 M	1880 J	37,380 J	3080 M	220 M
anthracene	230 M	1850 M	3,550 M	1240 M	
fluoranthene	650 M	2490 M		1970 J	140 M
aniline	160 M				
2-methyl naphthalene	1090 M	3370 J	17,180 J	4490 J	460 M
2-methyl phenol			9,600 J		
4-methyl phenol			20,000 J	1140 J	
biphenyl			20,000 J		
dimethyl diphenyl urea			37,200 J	7200 J	
n-nitrosodiphenylamine				770 M	180 M
3,3-dichlorobenzidene				520 M	
benzoic acid				5710 J	
hexane diisocyanate				12,100 J	

All concentrations in ug/kg.

M = above the detection limit, but below the level of quantification

J = estimated value

TABLE 2
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
NON-VOLATILE ORGANIC GC/MS SCAN
JUNE 2, 1988

page 2b

Ash samples

PARAMETER/SAMPLE#	#112201	#112202	#112203	#112204	#112212
dimethyl phthalate		230 M	1750 M	170 M	
diethyl phthalate	380 M	890 M	102,930 J	1100 M	
di-n-butyl phthalate	5200 J	35,920 J	90,150 J	6830 J	1980 M
butyl benzyl phthalate	2500 M	8,070 J	67,530 J	1290 M	1780 M
di-n-octyl phthalate	340 M		5850 M		50 M
bis(2-ethylhexyl) phthalate		51,060 J	259,230 J	39,960 J	
pyrene	660 M	480 M	7500 J	3610 J	200 M
chrysene	160 M	630 M	1950 M	2070 M	
1,2-benzanthracene	110 M	400 M	1055 M	1850 M	
4-chlorophenyl phenyl ether					
benzo(a) pyrene		2450 M			
1,12-benzoperylene					
benzyl alcohol		710 M	24,730 J	2570 J	
2-methyl alcohol					
dibenzofuran	250 M	750 M	3450 M	360 M	
toluene diisocyanate		340,000 J			
phthalic anhydride		56,000 J			
naphthalene isocyanate		67,000 J			1500 J
2,6 dinitrotoluene					
2,4-dinitrotoluene					
1,2-diphenylhydrazine		1560 M		120 M	
3,4-benzofluoranthene	280 M	2950 M			110 M
11,12-benzofluoranthene					
dihydrotrimethylphenyl ind.					
phenol, 2,4-bis(1,1-dimethyl)				33,000 J	
ylangene				4590 J	
homosolate			12,500 J		
cholestanol			123,000 J	5700 J	
PCB-1016					
PCB-1221					
PCB-1232					
PCB-1242					
PCB-1248					
PCB-1254					293,970
PCB-1260					115,400

All concentrations in ug/kg.

J = Estimated value.

M = Above the detection limit, but below the level of quantification.

TABLE 2
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
NON-VOLATILE ORGANICS GC/MS SCAN
JUNE 2, 1988

page 3a

Aqueous samples

PARAMETER/SAMPLE #	#112205	112206	Dup. 112211	#112207	#112208	#112213
2-chlorophenol						
2-nitrophenol						
phenol	1.3 M		3.2 M		1.4 M	
2,4-dimethylphenol		7.3	11.2 M	0.2 M	6.2	
2,4-dichlorophenol				1.1 M		
2,4,6-trichlorophenol						
p-chloro-m-cresol						
2,4-dinitrophenol						
4,6-dinitro-o-cresol						
pentachlorophenol						
4-nitrophenol						
1,3-dichlorobenzene	1.1 M	0.4 M				2610
1,4-dichlorobenzene	4.2 M	1.5 M		1.6 M		34,200
1,2-dichlorobenzene	1.2 M	1.6 M		0.2 M		167,140
hexachloroethane						
hexachlorobutadiene						
1,2,4-trichlorobenzene	0.8 M	0.5 M			0.2 M	393
napthalene		11.7	14.7 M			28,380
bis(2-chloroethyl) ether						
bis(2-chloroethoxy) methane						
isophorone		2.4			2.8	109
nitrobenzene						
scenaphthylene					2.5 M	
acenaphthene						137
fluorene		1.3 M	7.8 M		0.5 M	
hexachlorobenzene						
phenanthrene	0.3 M	2.7 M	18.7 M	0.2 M	2.8 M	115 M
anthracene					1.6 M	
fluoranthene		0.8 M		2.2 M	4.2	
aniline						
2-methyl napthalene			11.7 M			61,080 J
2-methyl phenol	0.8 M	20.1 J	18.5 M			
4-methyl phenol		11.3 J	8.0 M		1.9 M	
benzoic acid			54.3 M		6.2	
methylbenzene sulfonamide	179 J				75 J	
methyl ethylbenzene		25.3 J				

All concentrations in ug/l.

M = above the detection limit, but below the level of quantification

J = estimated value

TABLE 2
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
NON-VOLATILE ORGANIC GC/MS SCAN
JUNE 2, 1988

page 3b

Aqueous samples

PARAMETER/SAMPLE#	#112205	112206	Dup. 112211	#112207	#112208	#112213
dimethyl phthalate		0.4 M				
diethyl phthalate						
di-n-butyl phthlate		7.2				
butyl benzyl phthalate	1.1 M	10.6 J	46.3J		7.1 M	
di-n-octyl phthalate		1.6 M	3.7M		0.7 M	
bis(2-ethylhexyl) phthalate	1.4 M	13.5 J	106.8J	4.7 J	21.7 J	
pyrene		1.3 M	7.9M	0.1 M	6.5	
chrysene	0.1 M	0.2 M	1.1M		1.8 M	
1,2-benzanthracene		0.1 M	0.5M		0.7 M	
4-chlorophenyl phenyl ether						
benzo(a) pyrene	0.2 M	0.2 M			2.8	
1,12-benzoperylene		0.5 M			4.3	
benzyl alcohol		5.3 J	3.1M			
2-methyl alcohol						
dibenzofuran		0.8 M	2.0M		0.4 M	567
2,6 dinitrotoluene						
2,4-dinitrotoluene		0.6 M				597
1,2-diphenylhydrazine	1.7 M	2.0 M		0.1 M		26.8 M
3,4-benzofluoranthene		0.1 M			2.3 M	
11,12-benzofluoranthene		0.2 M			2.5 M	
n,n-dimethyl n,n-diphenyl urea	52 J					
trimethylbenzene isomers		58.4 J				
trimethyl-1,3 pentanediol		26.3 J				
n-ethyl-4-methylbenzene sulf.		39.3 J				
tetramethyl butylphenol					27 J	
methyl napthalene isomers		5.5 M			1.4 M	
ylangene						
homosolate						
cholestanol		96.6 J	712 J	71 J		
PCB-1016						
PCB-1221						
PCB-1232						
PCB-1242						
PCB-1248						
PCB-1254	0.403					
PCB-1260						

All concentrations in ug/l.

J = Estimated value.

M = Above the detection limit, but below the level of quantification.

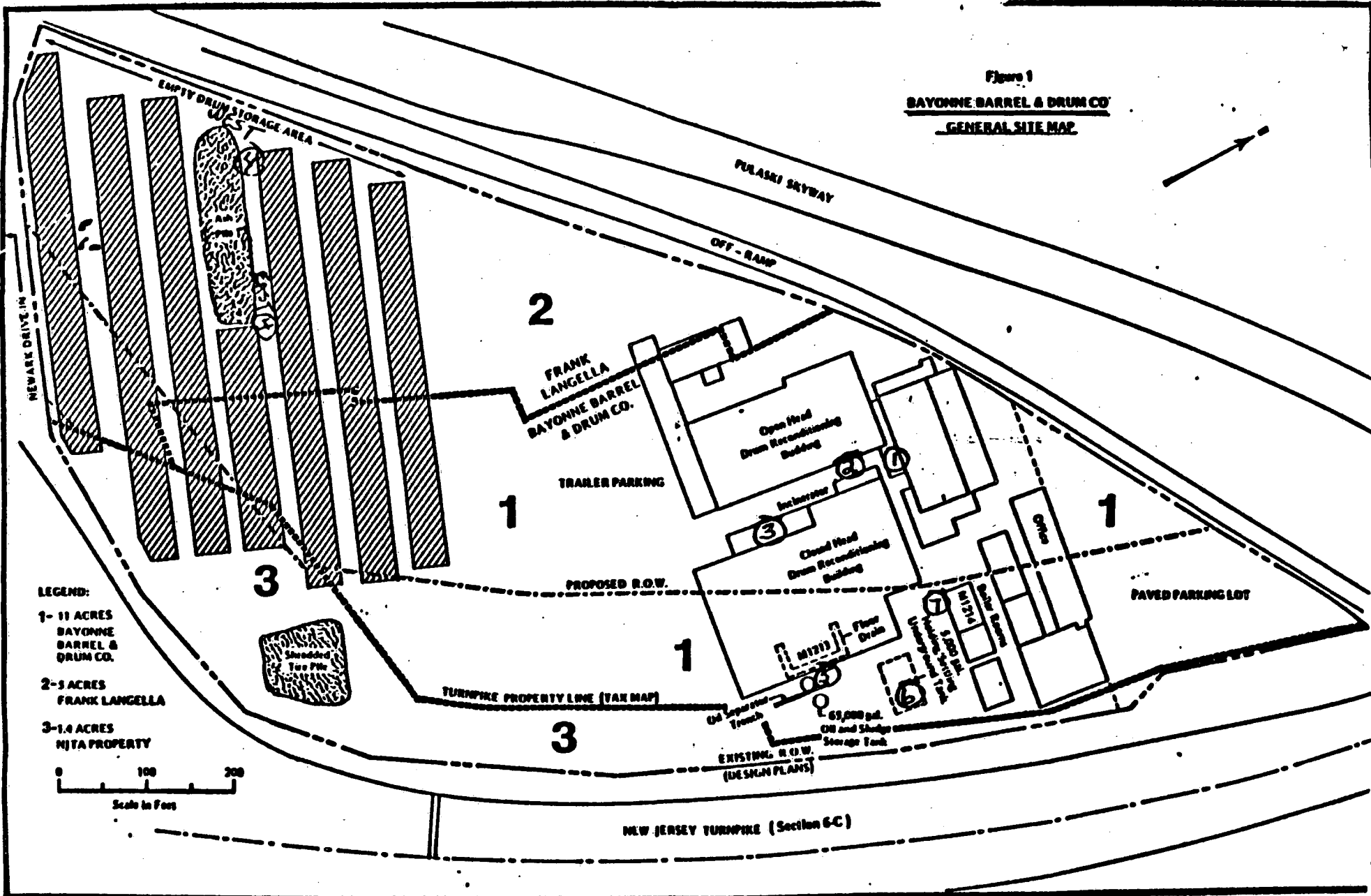
TABLE 3
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
EP TOX METALS DATA
JUNE 2, 1988

SAMPLE #/PARAMETER	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
#112201 (ash)	--	.01 M	2.84	1.16	--	--	4.72	.03 M
#112202 (ash)	.048M	.02 M	1.86	0.257	--	--	1.06	.02 M
#112203 (ash)	--	.04 M	3.53	2.84	.36 M	.15	1.69	.53
#112204 (ash)	--	.04 M	5.02	2.72	--	.0007 M	1.67	.04 M
#112205 (liq)	--	.01 M	0.22M	.027M	--	.0002 M	.1 M	--
#112206 (liq)	.012 M	.02 M	0.45M	--	--	.0003 M	--	.02 M
#112207 (liq)	.013 M	.01 M	--	--	--	--	--	.01 M
#112208 (liq)	--	.01 M	0.48M	--	--	--	--	.02 M
#112211 (liq)	--	.01 M	0.28M	--	--	.0003 M	--	.01 M
#112212 (ash)	--	.01 M	0.846M	.243	--	--	.57	.01 M
#112213 (liq)	--	1.0 M	.62M	--	1.6 M	.004 M	--	2.0 M
Maximum concentration allowed for EP TOX	5.0	5.0	100	1.0	5.0	0.2	5.0	1.0

Sample #112211 was a duplicate to sample #112206.

All concentrations expressed in mg/l.

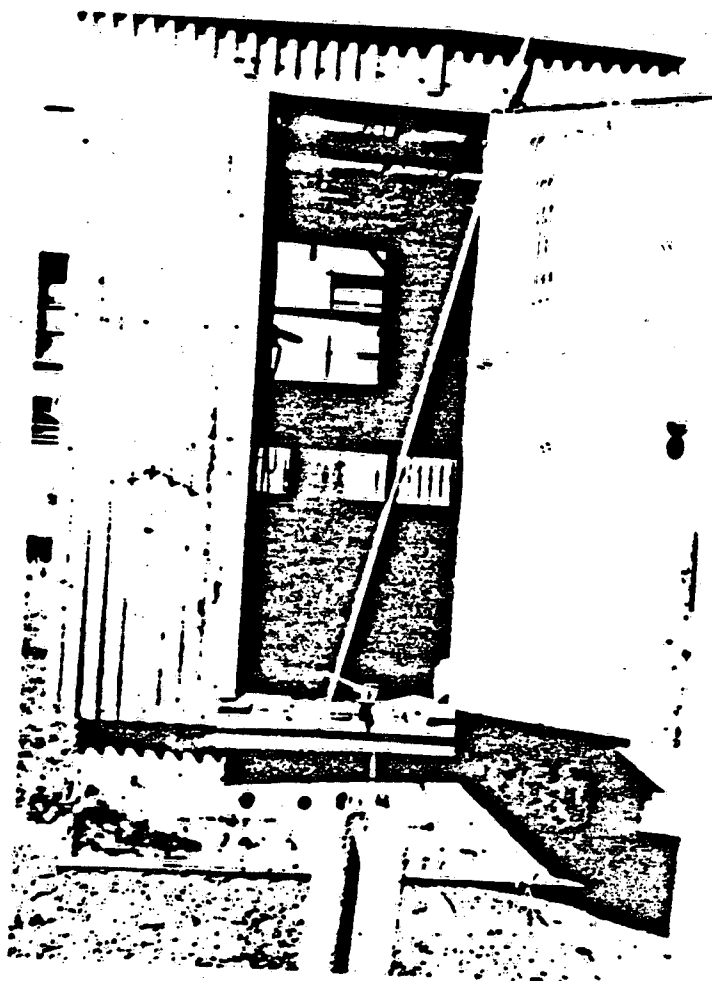
M = above the detection limit, but below the level of quantification.



SAMPLING locations are approximate,
as indicated by numbers in
colored areas.

Map taken from Louis Berge
and Assoc. report dated 12/86
for NJ Turnpike Auth.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#1. Pump house sampling location.
Liquid samples collected at
this location. See item #6
on attached site map.



#2. Underground tank, item #7
on attached site map.
Measuring total depth of
tank.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

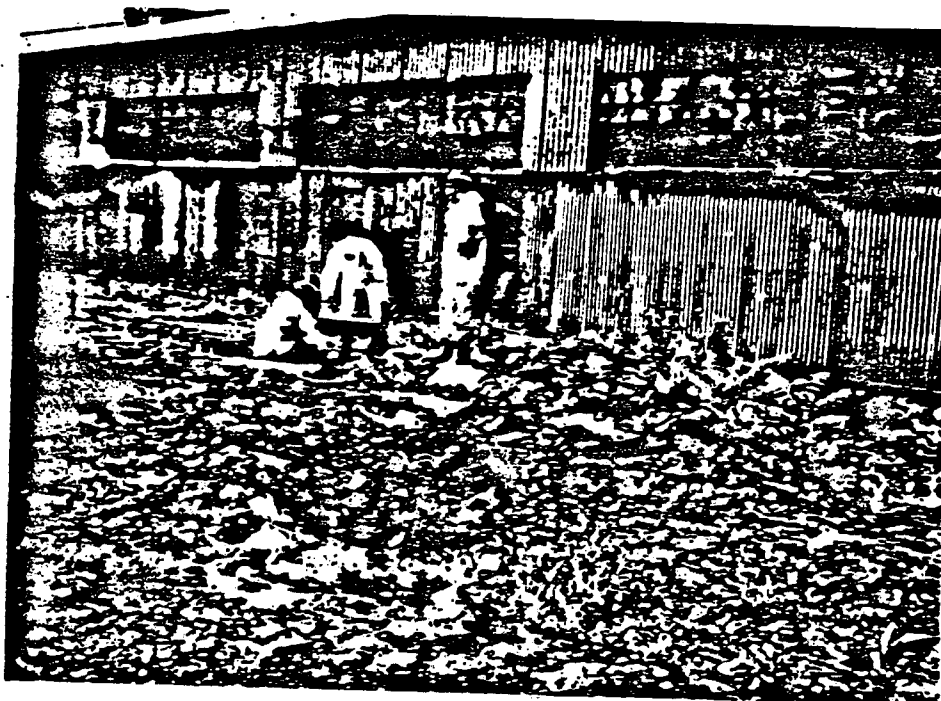


#3. Sampling underground tank.



#4. Collection of aqueous samples from courtyard area. Item #2 on attached site map.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#5. Collection of random, grab composite ash sample from courtyard area.

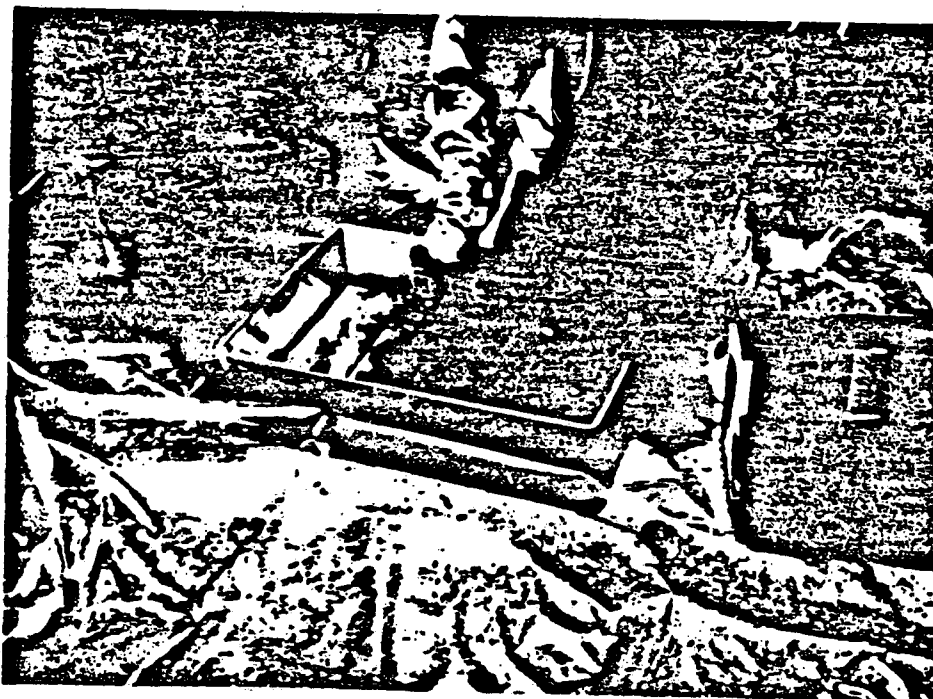


#6. Close-up of ash pile in courtyard, similar to photo #5.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

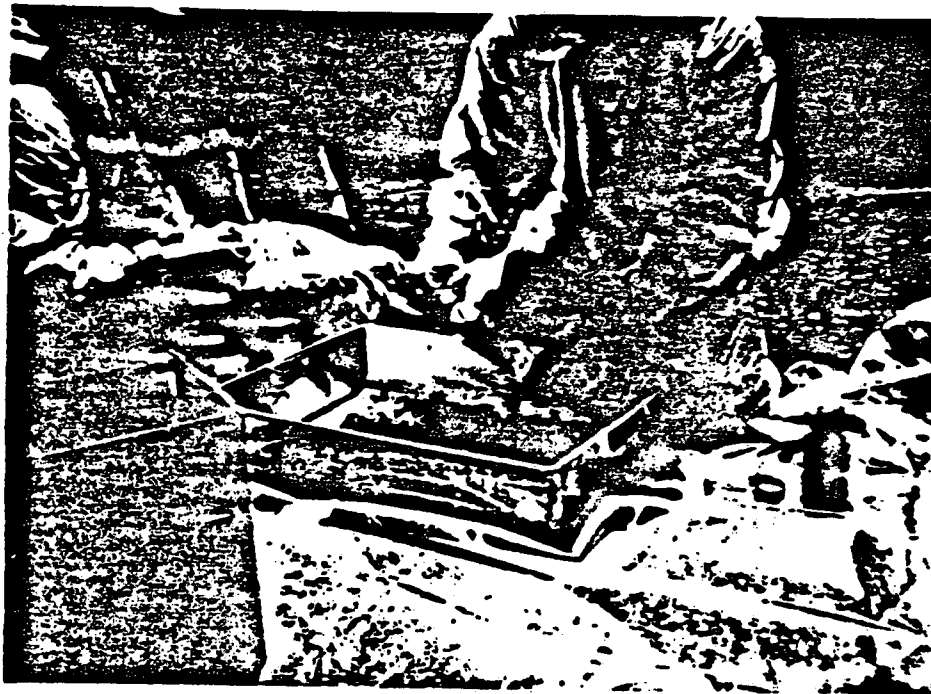


#7. Ash from courtyard area ash pile, ready for compositing.

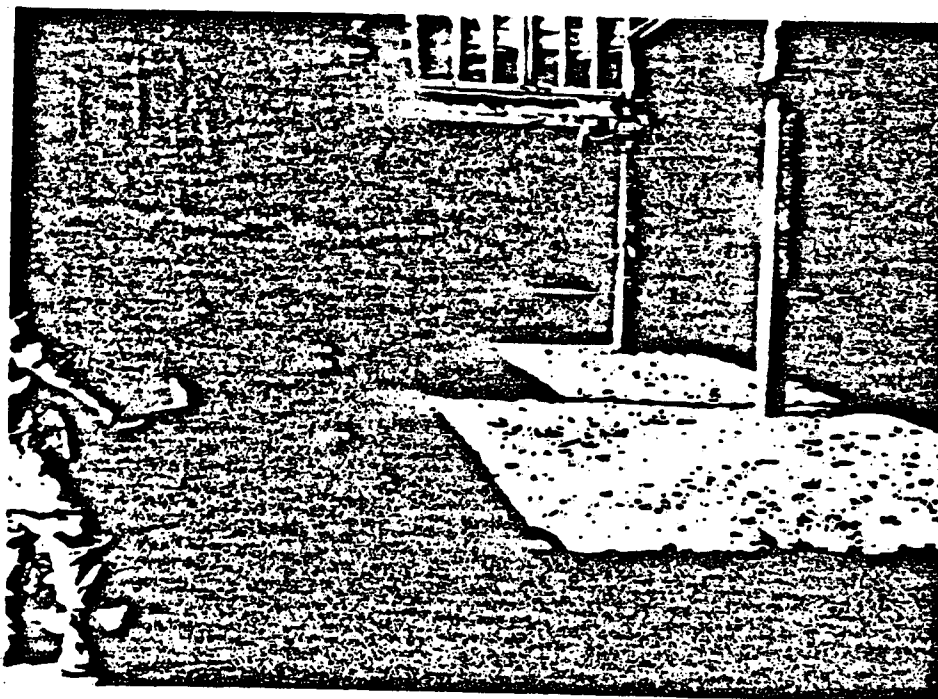


#8. Compositing ash sample from courtyard area, prior to filling sample containers.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#9. Filling POA vial with ash from courtyard area, item #2 on the attached site map.



#10. Furnace room building, item #1 on the attached site map. Combination ash/soil samples were collected at random from this location.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

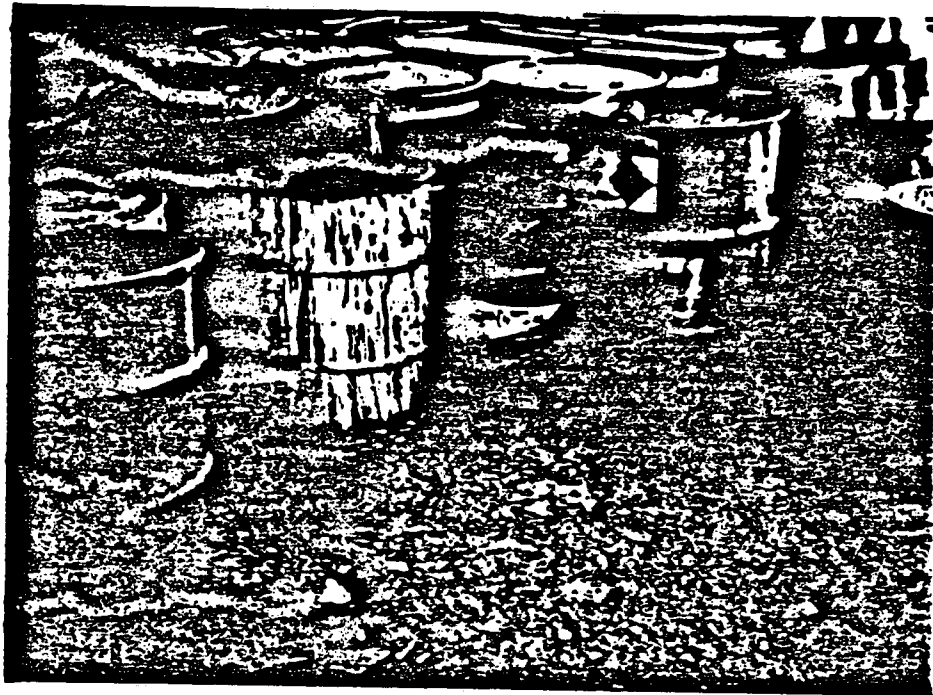


#11. Sampling "red" drum in the drum and ash storage room; item #3 on the attached site map.



#12. Overview of some of the many drums in the drum and ash storage room. Note condition of drums and old labels.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#13. "Red" drum which was sampled in the drum and ash storage room.



#14. Another view of drums in the drum and ash storage room.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#15. Sampling the ash pile in the drum and ash storage room. Note presence of drums in background.



#16. Opposite view of ash pile in drum and ash storage room.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

EAST



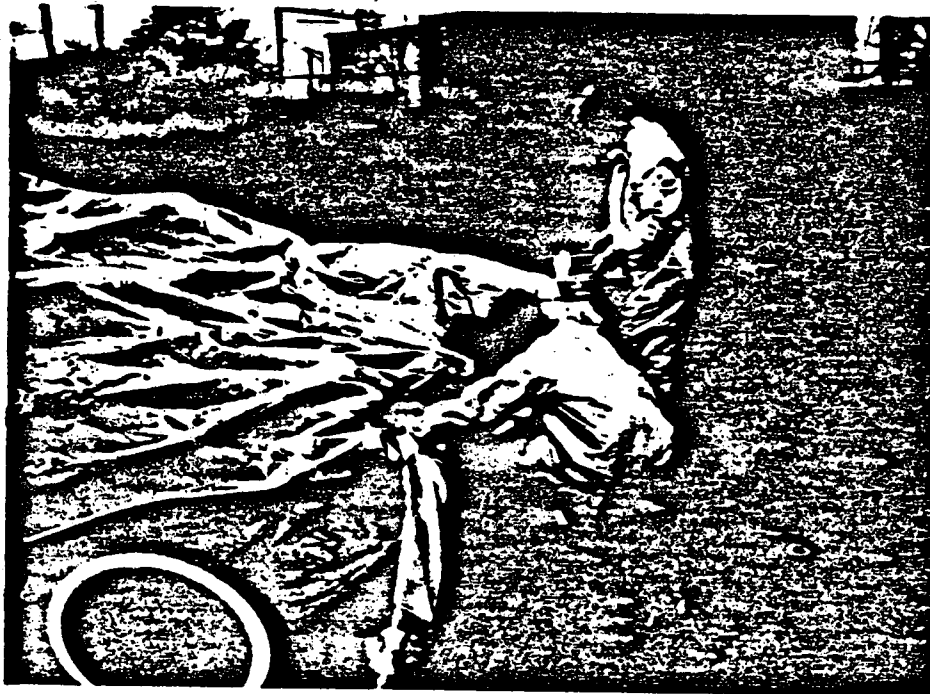
WEST

- #17. Waste ash pile, item #4 on the attached site map. An imaginary line was drawn through the ash pile to delineate an EAST and WEST half.



- #18. Sampling East half of the ash pile. Samples were collected at random and manually composited in a stainless steel tray.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#19. Sampling West half of ash pile; item #4
on the attached site map.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II**

DATE:

August 19, 1988

SUBJECT:

Transmittal of RCRA Enforcement Inspection for Bayonne Barrel & Drum

FROM:

Michael Ferriola, Environmental Scientist
Source Monitoring Section *Michael Ferriola*

TO:

George Meyer, Chief
Hazardous Waste Compliance Branch

**Enclosed is a copy of the inspection report for the RCRA Enforcement
Inspection conducted at Bayonne Barrel & Drum on June 2, 1988.**

attachments

cc: Ted Gabel w/o attachments

09-0151
1/3/90

5.0 DESCRIPTION OF SOLID WASTE MANAGEMENT UNITS

Introduction

The following Solid Waste Management Units have been identified at the site:

- * Furnace Area,
- * Ash Pile and Ash Pile Area,
- * Building 1,2 & 3 Interiors,
- * Water Treatment Area.

Information concerning these SWMU's and sampling results and interpretation from prior site investigations are summarized below. Results of past sampling are also shown on Dwg No.'s BB-005A and BB-005B.

5.1. ASH PILE AND SURROUNDING SOIL

5.1.1 Description

The furnace ash pile is located in the south eastern portion of the facility and occupies an area 50 feet x 120 feet. It is approximately 4 feet in height and has a volume of approximately 890 cubic yards (see DWG. Sheet No. BB-003). Results of samples collected from ash and analyzed in 1978, 1979 & 1980 for disposal purposes indicate that the material was a RCRA characteristically hazardous waste for the presence of chromium and lead.

A 1981 New Jersey Department of Environmental Protection (NJDEP) inspection report estimated that approximately 40,000 lbs of incinerator ash and sludge were generated a month.

An NJDEP site inspection report dated 3/3/82 indicates the presence of a pile of ash within this area measuring 2'x 35'x 40' or approximately 103 cubic yards (cy). The report notes that leachate was running from the ash pile. The leachate was described as encompassing an irregular area extending approximately 150 feet downgradient from the pile. Samples collected from the waste pile (sludge) and the run-off material indicated that neither of these materials were characteristically hazardous for metals, although the sludge was found to be ignitable (sample # TD074). Halogenated organics compounds were detected in the sludge and the leachate (3,450 and 2,579 ppm, respectively).

in only one sample location south of the pile where surface contamination is pronounced. Surface soil contamination was also noted during composite sampling performed by the U.S. EPA in 1984. Results of Raviv sampling are similar to the EPA sampling in this area indicating contamination from PHC's, semi-volatile and volatile organics and metals. Although significant concentrations of total metals were identified by Raviv (Sample No. BBD4), soils in this area were not found to be EP Toxic for metals by the U.S. EPA.

Results of soil sample BBD14 collected adjacent to the west side of the ash pile by Raviv indicate the presence of PCB's at a level of 65 ppm. Results from the U.S. EPA composite soil sample 65187 collected from around the ash pile similarly indicate concentrations of PCBs above 50 ppm. As previously indicated, PCB contamination identified around the ash pile appears to have pre-existed the piling of ash at this location.

5.2 FURNACE AREA

5.2.1 Introduction

The furnace area is situated in approximately the center of the facility between the closed head and open head drum reconditioning buildings (Bldg's 1, 3 & 4, see DWG Sheet No. BB-003). The furnace area consists of a 2,200 square foot, one (1) story concrete block building and a conveyor fed furnace which was fired with natural gas. The furnace is approximately ten feet wide by eighty feet long. RCRA empty drums were conveyed to the concrete receiving building where they were placed onto a separate conveyor entering the furnace. After the drums exited the furnace they were washed and cooled with a spray bath. Discharge waters from this process were collected in two (2) tanks and a trough located adjacent to the furnace and directed via underground pipes to the south end of the water separator for treatment. The two underground storage tanks situated at the end of the furnace were also used to temporarily contain wash residues.

5.2.2 Nature of Contaminants

Residual ash from the cleaning of drums is evident throughout the area of the furnace and therefore remedial activities to remove this material will be undertaken. In addition, floor sweepings and other drummed materials generated from cleanup of the interior of the remaining site

contamination of 20,800 ppm.

Results from sample BBD19, reportedly collected from the alley northeast of the furnace outlet between the closed head reconditioning building and the building north of the furnace (Building No.3), indicate substantially less contamination than that reported for the other samples collected within the furnace area. Samples were collected from three (3) intervals; zero to one (0-1'), one to two (1-2') feet and two to three (2-3') feet below the surface. Petroleum hydrocarbons and PCB's were detected in the first two sample increments at levels of 4,330 ppm PHC and 37 ppm PCB, and 1,700 ppm PHC and 32 ppm PCB respectively. Results of the sample collected at the third and final increment (2-3') indicate PHC contamination at a concentration of 130 ppm. No PCB's were detected at this sample increment. The first sample increment (0-1') was also analyzed for volatile organics which was reported to be non-detected.

Results of a surface soil sample (65192) collected by the U.S. EPA during their investigation in February 1984 and analyzed for EP Toxic metal and pesticides/herbicides, semi-volatile and volatile organics, and total priority pollutant metals indicates the presence of total metals and semi-volatile organics above NJDEP recommended guidance values. Volatile organics appear to have been non-detected. Additionally, the soil was not found to be leachable for metals based upon results of analysis for EP Toxicity.

5.3 WASTE WATER SEPARATOR AREA

5.3.1 Introduction

The water separator area is located east of and adjacent to building No.1, the closed head drum reconditioning building. Waste waters and oil generated during the cleaning and reconditioning of closed head and open head drums were discharged to this area for treatment. Liquid wastes from the cleaning of closed head drums were directed from building No.1 to the separator trench. Oil and water collected in the trough and tanks located in the furnace area were also directed to the trench. Primary treatment in this area included the physical separation of organics, water and solids. Waste water was separated initially in the trench and 5,000 gallon underground settling tank. Thereafter the water was pumped to the above ground 60,000 gallon storage tank for final separation. The remaining two storage tanks were never used due to the cessation of operations. Effluent water was discharged to the Passaic

within the area were similar in the physical description of general petroleum contamination. However, the Berger samples collected from 0 to 1.5 feet indicated substantially lower levels of VOC's (0.22 ppm and 0.002 ppm respectively). Likewise, the Berger Results from this interval were non-detected for PCB's with a detection level of 15 ppm. Although these results are from different specific locations, they are relatively close and therefore suggest that contamination is either not far reaching or may be from non-specific contamination in the fill material. Results of Berger sample No. M1198, collected from 0 to 1.5 feet below the surface and topographically downgradient of the separator area, indicate substantially lower levels of contamination than those collected adjacent to the separator.

5.5 DEMONSTRATION OF COMPLIANCE

This closure plan has been prepared in accordance with 40 CFR 265 et seq. for the areas applicable to the closure requirements. Specific information, as described in the interim status (265) Closure/Post-Closure Plan Checklist.

A-1 Closure Plan Requirements

A-1a Closure Performance Standard - see Section 6.0.1

A-1b Partial Closure Activities - Not Applicable

A-1c Maximum Waste - Approximately 1,630 cubic yards of ash is currently stored in a pile located in the southwest portion of the site. Approximately 65 cubic yards of ash and debris from the cleanup of the buildings is stored in a pile in building No.2. An estimated 350 drums of solid waste, consisting of floor sweepings, debris and ash are also stored within building No.2. Although a specific inventory of drum contents has not been conducted, a portion of these drums are reported to contain waste oil/sludge generated during the cleaning of the waste water treatment tanks. An estimated 400 cy of ash is estimated to be on the surface of the furnace area. Based on information contained in U.S.EPA and NJDEP inspection reports, approximately 40,000 pounds (lbs) of ash was generated monthly during the active operations of this facility.

A-1d Inventory Removal, Disposal or Decontamination of Equipment

All equipment previously used in the operations of this facility which were housed within the buildings have been removed. Specifications for the removal and disposal of current waste inventory are provided in Sections 6 and 7 of this closure plan.

A-1d(1) Closure of Containers - The container storage area subject to this plan is located in building No.2. Specific information concerning the closure of this area is provided in Section 6.1.4 of this plan, re. Phase I Remediation.

A-1d(2) Closure of Tanks - The closure of tanks involves two (2) underground collection tanks located in the furnace area and their associated separation trenches and piping, and one (1) 5,000 gallon underground tank and

OCT 22 1991

Mr. Karl J. Delaney, Director
Division of Responsible Party Site Remediation
State of New Jersey
Department of Environmental Protection and Energy
401 East State Street
CN 028
Trenton, New Jersey 08625-0028

Dear Mr. Delaney:

This is in response to your request on September 30, 1991 regarding the Bayonne Barrel and Drum site located in Newark, New Jersey.

The Technical Support Section conducted a site reconnaissance prior to the receipt of your request, based on a preliminary discussion with DEPE personnel. At this time, additional work needs to be conducted in order to determine the site's removal eligibility. Past sampling data from investigations conducted at the site by a consultant have been requested from the Bureau of Site Assessments. Once the Region has determined the course of action it will take on this situation, we will notify your office of this decision.

Currently, activities at the site are being managed by Nick Magriples, On-Scene Coordinator of the Technical Support Section. If you have any questions regarding this site, please contact Nick at (908) 906-6930.

Sincerely yours,

Richard C. Salkie, Associate Director for
Removal and Emergency Preparedness Programs

cc: K.Callahan, 2ERR

bcc: G. Zachos, 2ERR-RAB
P. Cammarata, 2ERR-TSS
S. Becker, 2ERR-PSB
D. Karlen, 2ORC-NJSUP

File:BAYONNE.LT1:ERR-TSS:MAGRIPLES:340-6930:nm:asstd:10/15/91

ERR-TSS
MAGRIPLES

[Signature]
10/15/91

ERR-TSS
WITKOWSKI

[Signature]
10/15/91

ERR-RAB
ZACHOS

[Signature]
10/15/91

ERR-ADREPP
SALKIE

[Signature]
10/15/91

RECORD OF TELEPHONE CONVERSATION

☐ FROM ☒ TO

DATE: 10/23/91

TIME: afternoon

NAME: Dave Triggs

PHONE #: 609-584-1289

AGENCY: NY DEPE

PROJECT: Bayonne Borel + Driv

SUBJECT: Ownership/access

COPY TO: File

Triggs spoke to DEPE Project Manager From the Responsible Party Cleanup Bureau.

- Owner is dead.
- There was a developer interested in the property at one time. However, due to site contamination he backed down. He was under agreement/order to conduct cleanup, however there was a clause that allowed him to back out.
- DEPE has no future plans for the site.
- EPA has never done a PA/SI at the site.
- DEPE PM has no knowledge of the guard nor the posted real estate signs at the site.
- No information ^{reportedly} available on access or ownership.

Mark
Signature

RECORD OF TELEPHONE CONVERSATION

☐ FROM ☒ TO

DATE: 10/24/91

NAME: Milton Raff
AGENCY: NORTH METRO REAL ESTATE
real estate agent

TIME: approx 3PM
PHONE #: 201-589-4141
PROJECT: Bayonne Barrel + Drum
SUBJECT: property ownership
COPY TO: file

He is the agent (acting in capacity of) the developer
(Phil Perlman, Chicago) who bought the mortgage from the bank.

FIRST FIDELITY BANK

He doesn't understand why we're getting involved since they
are "working with the DEP". He stated there is an interested
party, however nothing is happening at this time in terms of
the development of the property.

The guard at the site is maintained by Milton Raff.

Informed him of DEP's request for us to evaluate the site.
He stated that the site poses no threat and that there are
no trespassers. I informed him of several areas in which
the fencing is suspect. Arranged for site visit on 10/29.

Alch

Signature

RECORD OF TELEPHONE CONVERSATION

☐ FROM ☒ TO

DATE: 10/25/91

NAME: Dave Triggs

TIME: 10:30 AM

AGENCY: NSDEPE

PHONE #: 609-584-4289

PROJECT: Bayonne Barrel & Drum

SUBJECT: -

COPY TO: File

He spoke to Milton Raff today who in turn also stated to him.. "what are you getting involved here for?". Triggs reiterated to me that the NSDEPE has nothing happening with the site. Jim DeNoble is the DEPE PM for the Responsible Party Bureau. Triggs will get additional info from DEPE Metro-Vacuum.

Triggs also stated that the Town of West Orange is foreclosing on the Langella estate for tax purposes.

The guard at the site lives there in one of the buildings.

Moh

Signature

Rcvd
10/8



State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation

CN 028
Trenton, NJ 08625-0028
Tel. # 609-633-1408
Fax. # 609-633-1454

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

SEP 30 1991

Kathleen Callahan, Director
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
26 Federal Plaza
New York, New York 10278

RE: Removal Request - Bayonne Barrel and Drum
150-154 Raymond Boulevard
Newark, New Jersey

Dear Director Callahan:

The New Jersey Department of Environmental Protection & Energy (NJDEPE) hereby submits the Bayonne Barrel and Drum (BBD) site for CERCLA removal action consideration. The following information summarizes the case history and supports the removal request.

The Bayonne Barrel and Drum site was a former drum reconditioning facility occupying approximately 15 acres of Block 5002, Lots 3 and 14. The facility operated as an unlicensed TSD facility from the early 1940's until the early 1980's when the company filed for bankruptcy under Chapter 11.

In 1984, the United States Environmental Protection Agency (USEPA) issued a Consent Agreement and Consent Order to BBD for operating a TSD facility without the required permits. The United States Department of Justice (USDJ) filed suit against BBD in 1988 for continued RCRA and TSCA violations and failure to comply with the 1984 USEPA consent order. A RCRA closure plan for the site was submitted to the NJDEPE on January 4, 1990, but was never formally reviewed because no legal consent instrument was ever agreed upon between the Department and receiving owners of BBD. Mr. Langella, the principle owner of the property and responsible party, died on April 13, 1991.

In 1989 USDJ ordered the owners (BBD) to remove the materials listed below, starting with the PCB contaminated waste piles. Some effort was recently made to remove the waste piles, but the effort was abandoned upon the death of Mr. Langella.

Hazardous wastes are now stored at the site in violation of the Federal Resource Conservation and Recovery Act (RCRA) and the Federal Toxic Substance Control Act (TSCA). These waste include the following:

1. A large area along the northwest section of the property containing partially covered piles of PCB contaminated ash. Another pile of ash along with approximately 200 ash filled drums in poor condition are situated in an abandoned building designated as Building 2.
2. An incinerator used to remove residual material from drums is situated adjacent to Building 2. The ground surrounding this area is covered with a hardened paint sludge, ash and solid chemical waste.
3. Two large vertical tanks of unspecified capacity, purportedly contain petroleum hydrocarbon waste and an alkaline caustic wash waste generated from the drum reconditioning operations.
4. Six unregistered underground storage tanks which may contain toluene, xylene and methylcellosolve.
5. The northwest corner of Building 3 may be contaminated with hexavalent chromium waste based on a characteristic yellow crystalline material observed on a concrete wall.

In addition, there is a large pile of shredded tires and approximately 45,000 "RCRA clean" drums stored on site.

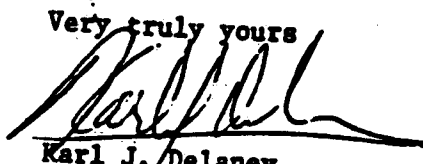
Until recently, the site had been handled as a developer site under an Administrative Consent Order (ACO) executed on November 20, 1990. However, the developers, Pearlman and Pearlman Living Trust, decided that it was not economically feasible to develop the site and subsequently declined to initiate a removal. Although it is believed that First Fidelity Bank may hold a lien on the property, efforts to locate a responsible party have thus far failed and conditions on site continue to persist.

The site is situated within a heavily populated area directly below the Pulaski Skyway. Any discharge, fire, explosion or air release could threaten the local population and seriously disrupt traffic along the nearby roadways.

The Department requests that the EPA stabilize the site by inventorying, characterizing and disposing of the abandoned materials in such a manner as to safeguard the health and welfare of the local population.

Should your staff require additional information, please have them contact David Triggs of the Bureau of Site Assessment at (609) 584-4289. Your prompt notification would be appreciated.

Very truly yours



Karl J. Delaney
Director

DT/ap

C. Lance Miller, Assistant Commissioner, Site Remediation
Anthony Farro, Director, Publicly Funded Site Remediation
Wayne Howitz, Assistant Director, Discharge Response Element
Bob Van Fossen, Chief - Bureau of Site Assessment
Yacoub Yacoub, Metro Bureau of Field Operations
Richard Salkie, USEPA
George Zachos, USEPA
Dave Triggs, Bureau of Site Assessment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: NOV 05 1991

SUBJECT: Request for ESD Sampling and Analytical Assistance

FROM: Richard C. Salkie, Associate Director for *Removal and Emergency Preparedness Programs* *Bruce L. Salkie (6)*

TO: Richard D. Spear, Chief
Surveillance and Monitoring Branch

The purpose of this memorandum is to request the technical assistance of the Environmental Services Division, Surveillance and Monitoring Branch (SMB) in support of sampling activities for the Bayonne Barrel and Drum site in Newark, New Jersey.

The State of New Jersey Department of Environmental Protection and Energy (NJDEPE) has requested that EPA stabilize the site by inventorying, characterizing and disposing of the abandoned materials at the site. As part of the removal assessment to determine whether the site warrants a CERCLA Removal Action, several vertical tanks and a number of drums need to be accessed and sampled.

The scope of work required of SMB is to access the three vertical tanks from the top, collect representative samples if material is present, and sample five to ten drums. The material in the tanks is expected to be phased. On-site air monitoring and field analyses, and off-site laboratory analyses will be arranged for by the Removal Program's TAT contractor.

A site visit is being arranged for November 7th to ascertain the best approach for accessing the tanks. Sampling assistance is requested for either the week of November 10th or 17th. If you have any questions please contact Nick Magriples at ext. 6930.

cc. B. Metzger, ESD-DIR
J. Ciancia, ESD-SMB-SMS

NOV 05 1991

Request for ESD Sampling and Analytical Assistance

Richard C. Salkie, Associate Director for
Removal and Emergency Preparedness Programs

Richard D. Spear, Chief
Surveillance and Monitoring Branch

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cc. B. Metzger, ESD-DIR
J. Ciancia, ESD-SMB-SMS

FILE: BAYONNE.ESD:NICKASSTD:NMAGRIPLES:11/5/91

ERR-TSS
MAGRIPLES

Magriples
11/5/91

ERR-TSS
WITKOWSKI

[Signature]

ERR-RAB
ZACHOS

[Signature]
11/5

ADREPP
SALKIE

[Signature]
11/5/91



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Agency for Toxic Substances
and Disease Registry

George Buynoski

RECEIVED Memorandum

OCT 29 3 03 PM '91

U.S. EPA.
REMOVAL AND EMERGENCY
PREPAREDNESS PROGRAMS

Date October 25, 1991

From Arthur Block *AB*
Senior Regional Representative

Subject Bayonne Barrel & Drum Site
Newark, Essex County, New Jersey

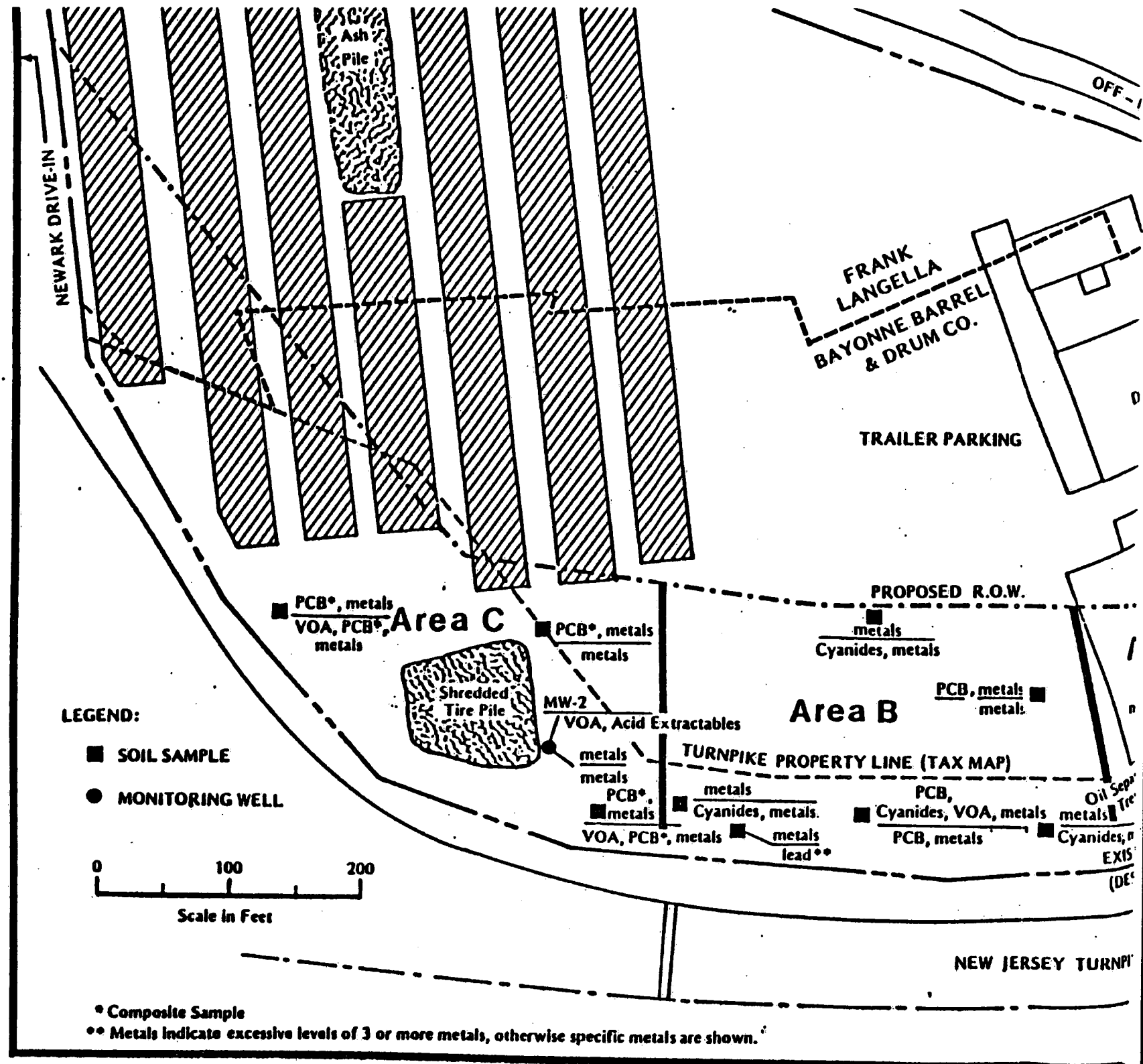
To Zemorla Rosemond
Environmental Health Scientist
ATSDR/DHAC

As discussed with Dave Barry on October 24, 1991, the EPA, ERRD, OSC, Nick Margripolis requested ATSDR to provide EPA with a Health Consultation on Bayonne Barrel & Drum. I discussed with Dave the particulars about the site and the reason for the EPA request.

Please review the attached information/data. EPA is requesting a turnaround time for the written Consultation by November 6, 1991. If you need more information/data please advise me. I can set up a Conference Call with the EPA/OSC next Thursday, October 31st if you think it appropriate. Thanks.

Attachment

cc: George Buynoski
Bob Williams
Hal Emmett
Dave Barry
Richard Salkie
Lisa Voyce





OFF - RAMP

FRANK LANGELLA
BAYONNE BARREL
& DRUM CO.

TRAILER PARKING

Open Head
Drum Reconditioning
Building

Incinerator

Closed Head
Drum Reconditioning
Building

Office

PROPOSED R.O.W.

PAVED PARKING LOT

Area A

Area B

TURNPIKE PROPERTY LINE (TAX MAP)

PCB, metals
metals

M1213
Floor Drain

Underground Tank
5,000 gal.
Holding/Settling

M1214

Boiler Rooms

metals
Cyanides, metals
metals
lead

PCB, metals
Cyanides, VOA, metals
PCB, metals

Oil Separator
Trench
Cyanides, metals

metals
PCB
65,000 gal.
Oil and Sludge
Storage Tank

MW-3
M1198

EXISTING R.O.W.
(DESIGN PLANS)

NEW JERSEY TURNPIKE (Section 6-C)

OWE

4.1 Soils

Area A

Priority pollutant heavy metals were the most significant contaminants in all three soil samples (M1188, M1189 and M1198) in Area A. Samples M1188 and M1189 had levels of cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg) and zinc (Zn) all exceeding BISE cleanup levels (Cr in sample M1188 was 99 mg/kg which is 1 mg/kg below the cleanup level). Sample M1198 had only excessive levels of lead with all other priority pollutant metals below cleanup levels.

The source of these metals may be from the impurities in the reconditioned steel drums which are removed during the incineration process. The ash from the incineration concentrates these metals which can then be leached. Other sources can be from the drum reconditioning building and overflows from the oil/water trench which also contains metal from the incinerator leachate. The levels found in LB&A's investigation are lower than those detected by the USEPA analysis of the ash pile and soils near the incinerator but consistent with those findings (see Appendix A). Where metal concentration in ash and incinerator soil was in the hundreds to thousands (mg/kg) the soil near the settling and holding tanks was in the tens to hundreds (mg/kg) range.

Area A had surficial soils (0-24") with excessive levels of organic contaminants. The organics in high concentration were polycyclic aromatic hydrocarbons (PAHs) and phthalates from the base/neutral extraction group. The total concentration of all priority pollutant base/neutral organics exceeded 110 mg/kg (see Table 5), with the phthalates comprising over 85% of the total. When additional peaks of the non-priority pollutants are figured in the total, the diversity of organic compounds increases to include other aliphatic and monocyclic aromatic hydrocarbons besides phthalates. In sample M1188, alkanes, a group of aliphatic hydrocarbons registered at over 76 mg/kg, while total monocyclic aromatic hydrocarbons which includes the tri and dimethyl benzenes exceeded 58 mg/kg. Both of these classes of chemicals were conspicuously absent in sample M1189 which is only 30 feet south of M1188. Sample M1198, taken from the first two feet of soil of monitoring well #3, also had low levels of nonpriority pollutants, except for alkanes, which were over 2.6 mg/kg. (Note: Results of non-priority pollutants are semiquantitative and useful only in indicating their presence and general level of concentration.)

There are no BISE criteria for cleanup levels of base/neutral extractables in soil, but polycyclic aromatic hydrocarbons are either known or suspected carcinogens and are included in the range of constituents found in sample M1188. There were no other excessive levels of contaminants in any of the soil samples in Area A, except for PCB's in sample M1188, at a concentration of 19.1 mg/kg. The BISE cleanup criteria for PCB's in soils is 1-5 mg/kg while USEPA does not regulate PCBs with a concentration of less than 50 mg/kg.